

What is claimed is:

1. A method for the production of a naturally secreted extracellular matrix coated three-dimensional framework comprising:

- 5 (a) culturing cells on a three-dimensional framework under conditions favorable for cellular growth for a pre-determined time period such that an extracellular matrix is secreted onto the inoculated framework creating a coated framework;
- 10 (b) killing the cells and
- (c) removing the cells and cellular debris.

2. The method according to claim 1 wherein the three-dimensional framework is made from a material, said
15 material being selected from the group consisting of polyamide, polyester, polystyrene, polypropylene, polyacrylates, polyvinyl compounds, polycarbonate, polytetrafluorethylene, thermanox, nitrocellulose, cotton, polyglycolic acid, catgut suture material, cellulose,
20 gelatin, chitosan, hyaluronic acid and dextran.

3. The method according to claim 1 wherein the three-dimensional framework has pore spaces of about 150 μ m to about 220 μ m.

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4. The method according to claim 1 wherein the extracellular matrix is secreted by tissue specific cells.

5. The method according to claim 1 wherein the
30 extracellular matrix is secreted by cells, said cells being selected from the group consisting of fibroblasts, osteoblasts, odontoblasts, chondrocytes, epithelial cells, smooth muscle cells, retinal cells, endothelial cells, stromal cells or combinations thereof.

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6. A method for the production of a naturally secreted extracellular matrix comprising:

- (a) culturing cells on a three-dimensional framework under conditions favorable for cellular growth for a pre-determined time period such that an extracellular matrix is secreted onto the inoculated framework creating a coated framework;
- 5 (b) killing the cells;
- (c) removing the cells and cellular debris and
- (d) collecting the extracellular matrix deposited on the coated framework.

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7. The method according to claim 6 wherein the three-dimensional framework is made from a material, said material being selected from the group consisting of polyamide, polyester, polystyrene, polypropylene, 15 polyacrylates, polyvinyl compounds, polycarbonate, polytetrafluorethylene, thermanox, nitrocellulose, cotton, polyglycolic acid, catgut sutures, cellulose, gelatin, chitosan, hyaluronic acid and dextran.

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8. The method according to claim 6 wherein the three-dimensional framework has pore spaces of about 150 μ m to about 220 μ m.

9. The method according to claim 6 wherein the 25 naturally secreted extracellular matrix is secreted by tissue specific cells.

10. The method according to claim 6 wherein the naturally secreted extracellular matrix is secreted by cells, 30 said cells being selected from the group consisting of fibroblasts, osteoblasts, odontoblasts, chondrocytes, epithelial cells, smooth muscle cells, retinal cells, endothelial cells, stromal cells or combinations thereof.

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11. A composition comprising a three-dimensional framework, said framework coated with a naturally secreted extracellular matrix composed of human proteins.

12. The composition according to claim 11 wherein the framework is made from a material, said material being selected from the group consisting of polyamide, polyester, polystyrene, polypropylene, polyacrylates, polyvinyl compounds, polycarbonate, polytetrafluorethylene, thermanox, nitrocellulose, cotton, polyglycolic acid, catgut sutures, cellulose, gelatin, chitosan, hyaluronic acid and dextran.

13. The composition according to claim 11 wherein the three-dimensional framework has pore spaces of about 150 μ m to about 220 μ m.

14. The composition according to claim 11 wherein the naturally secreted extracellular matrix is secreted by tissue specific cells.

15. The composition according to claim 11 wherein the naturally secreted extracellular matrix is secreted by cells, said cells being selected from the group consisting of fibroblasts, osteoblasts, odontoblasts, chondrocytes, epithelial cells, smooth muscle cells, retinal cells, endothelial cells, stromal cells or combinations thereof.

16. An injectable naturally secreted extracellular matrix composition for the treatment of tissue defects comprising a human naturally secreted extracellular matrix and a pharmaceutically acceptable carrier.

17. The composition according to claim 16 wherein the naturally secreted extracellular matrix is produced by:

- (a) culturing cells on a three-dimensional framework under conditions favorable for cellular growth for a pre-determined time period such that an extracellular matrix is secreted onto the inoculated framework creating a coated framework;
- (b) killing the cells;
- (c) removing the cells and cellular debris;

- (d) collecting the naturally secreted extracellular matrix deposited on the coated framework and
- (e) processing the collected extracellular matrix with a pharmaceutically acceptable carrier.

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18. The composition according to claim 17 wherein naturally secreted extracellular matrices secreted by different tissue or cell types are mixed between steps (d) and (e), such that ratios of collagen types I-V, respective
10 to each other, are adjusted.

19. The composition according to claim 16 wherein the framework is made from a material, said material being selected from the group consisting of polyamide, polyester,
15 polystyrene, polypropylene, polyacrylates, polyvinyl compounds, polycarbonate, polytetrafluorethylene, thermanox, nitrocellulose, cotton, polyglycolic acid, catgut sutures, cellulose, gelatin, chitosan, hyaluronic acid and dextran.

20 20. The composition according to claim 16 wherein the three-dimensional framework has pore spaces of about 150 μ m to about 220 μ m.

21. The composition according to claim 16 wherein
25 the naturally secreted extracellular matrix is secreted by tissue specific cells.

22. The composition according to claim 16 wherein the naturally secreted extracellular matrix is secreted by
30 cells, said cells being selected from the group consisting of fibroblasts, osteoblasts, odontoblasts, chondrocytes, epithelial cells, smooth muscle cells, retinal cells, endothelial cells, stromal cells or combinations thereof.

35 23. A method for the repair of tissue defects comprising injecting a naturally secreted extracellular matrix in a pharmaceutically acceptable carrier at the site

of the tissue defect.

24. The method according to claim 23 wherein the naturally secreted extracellular matrix is produced by:

- 5 (a) culturing cells on a three-dimensional framework under conditions favorable for cellular growth for a pre-determined time period such that an extracellular matrix is secreted onto the inoculated framework creating a coated framework;
- 10 (b) killing the cells;
- (c) removing the cells and cellular debris;
- (d) collecting the naturally secreted extracellular matrix deposited on the coated framework and
- 15 (e) processing the collected extracellular matrix with a pharmaceutically acceptable carrier.

25. The method according to claim 23 wherein naturally secreted extracellular matrices secreted by different tissue or cell types are mixed between steps (d) and (e), such that ratios of collagen types I-V, respective
20 to each other, are adjusted.

26. The method according to claim 23 wherein the framework is made from a material, said material being
25 selected from the group consisting of polyamide, polyester, polystyrene, polypropylene, polyacrylates, polyvinyl compounds, polycarbonate, polytetrafluorethylene, thermax, nitrocellulose, cotton, polyglycolic acid, catgut sutures, cellulose, gelatin, chitosan, hyaluronic acid and dextran.

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27. The method according to claim 23 wherein the three-dimensional framework has pore spaces of about 150 μ m to about 220 μ m.

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28. The method according to claim 23 wherein the naturally secreted extracellular matrix is secreted by tissue specific cells.

29. The method according to claim 23 wherein the naturally secreted extracellular matrix is secreted by cells, said cells being selected from the group consisting of fibroblasts, osteoblasts, odontoblasts, chondrocytes, epithelial cells, smooth muscle cells, retinal cells, endothelial cells, stromal cells or combinations thereof.

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